

REMARKS

The Invention

The invention is directed to a citrus juice beverage comprising four components, as follows:

(1) a citrus juice component having a Brix level of at least about 9°. The concentration of this component is from about 20 to about 80 wt percent (claims 1, 15) or at least about 30 to about 90 wt percent (claim 14), based on the weight of the juice beverage;

(2) from about 3 to about 20 wt percent, based on the weight of the juice beverage, of a pulp component originating from a citrus juice. The component is a sinking pulp component (claims 1 and 19);

(3) a diluent to lower the Brix level to between about 3 and 9° Brix; and

(4) a sweetener that does not add a significant caloric load to the beverage.

The beverage has a Brix level between about 3 and 9°, and has the sensory and texture attributes comparable to those of the citrus juice component at the Brix level of that component.

The invention also is directed to a process for preparing the citrus juice beverage (claim 18) and to a beverage produced by a process (claim 19).

The Office Action

Claims 1-19 were pending and examined.

Claims 1, 4, 7, 8, and 14-17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Powers, United States Patent Number 4,889,739. Various features of Powers have been identified as relevant, including in particular dilution of concentrate by addition of water. The

office action asserts that it would have been obvious to over-dilute juice to extend the juice and yield more drinkable product.

Essentially the same claims (1-4, 7, 8, and 14-17) stand rejected under 35 U.S.C. § 103(a) as unpatentable over Ojima, United States Patent Number 7,029,717, in view of Powers. Ojima is cited solely for the disclosure of an orange juice beverage containing sucralose, as the remainder of the rejection relies on Powers.

Claims 1 and 3-20 (although there appear to be only 19 claims) stand rejected under 35 U.S.C. § 103(a) as unpatentable over Kupper, United States Patent Number 4,690,827, in view of Powers. The office action admits that Kupper does not recite use of sinking pulp (and indeed therefore cannot disclose use of citrus sinking pulp). However, Powers is again cited for the remaining points argued in the office action.

The Cited Documents

Powers is directed to a method for obtaining juices said to taste 'hand-squeezed.' Gentle juicing to obtain low-viscosity juices having low levels of sinking pulp is the key to obtaining Powers' desired product. Also, a number of procedures are followed to minimize titratable peel oil and flavanoid glycosides. Substantially all sensible pulp is removed from the juice to minimize adsorption of aroma and flavor compounds and to increase the efficiency of concentration. Aroma and flavor compounds are heavily refined to ensure that only the best aromas and flavors are returned to the product. Then, sinking pulp is removed to lower the viscosity. About 8 - 10 wt percent sinking pulp is the maximum amount tolerable by Powers, depending on the species of orange. A concentration process also is disclosed, as is a plurality of

individual compound concentrations achieved in accordance with the method. Reconstitution involves adding the appropriate amount of water, aroma, and flavor.

Powers discloses only that the viscosity of the resultant product is low as compared with juice of the same concentration. There is no disclosure of any of the other sensory and texture attributes of the product as compared with those of the feed juice. Indeed, Powers does not link the attributes of the product to those of the feed juice. Further, Powers is directed to single-strength products, not to products having a diluent to lower the brix from that of the starting juice. As the office action admits, Powers does not suggest or disclose use of an artificial sweetener.

Ojima is directed to sucralose-containing compositions. The compositions are said to provide significant stability for the sucralose. The sole relevant disclosure appears to be Example 50, which is directed to an orange juice-containing drink comprising a number of compounds. The sensory and texture attributes of the start juice and of the end product are not disclosed, nor are any of the other properties relevant to the claims pending herein.

Kupper is directed to a fruit juice beverage comprising a non-nutritive sweetener and more than the background pulp level that would be obtained by low shear mixing of the ingredients. Kupper does not explicitly or inherently disclose a number of features of the claimed invention. In particular, Kupper neither suggests nor discloses a citrus juice beverage "having sensory and texture attributes comparable to those of said citrus juice component having its given Brix level." Kupper does not disclose the Brix level of any combination of starting and product citrus products, nor does it disclose a beverage having a low Brix but sensory and texture characteristics of a juice having a higher Brix.

The Invention In view of the Cited Art

Applicants respectfully submit that the cited art, whether considered alone or in the proposed combinations, does not suggest the claimed invention. The claimed invention requires the four aspects identified above; none of the cited documents suggests these features.

Applicants respectfully traverse the rejection of claims 1, 4, 7, 8, and 14-17 over Powers, and of claims 1-4, 7, 8, and 14-17 over Ojima in view of Powers. Powers alone does not suggest the claimed invention, and Ojima's teaching of sucralose does not provide all of the features missing from Powers.

The claims require four features: a specific concentration of citrus juice component at a Brix of at least about 9°; from about 3 to about 20 wt percent sinking pulp from a citrus juice; a diluent to lower the Brix to between about 3 to about 9°, and a sweetener that does not contribute significant caloric load. Importantly, the resulting product has sensory and texture attributes comparable to those of the citrus juice having the Brix (at least 9°) of the start juice component, even though the Brix of the product is only 3 – 9°.

Applicants respectfully submit that Powers discloses nothing of the claimed invention. Powers is directed to a complex method for controlling viscosity to make the product seem 'hand-squeezed,' with all other sensory and texture properties remaining unmentioned. Importantly, Powers discloses a single-strength juice, and Applicants respectfully submit that to dilute such a juice, as is suggested to have been obvious in the office action, simply does not yield the claimed invention. Simply diluting juice gives dilute juice that tastes like dilute juice and has sensory and texture attributes comparable to those of watered-down juice. Although, as the office action asserts, orange juice can be diluted to any extent, diluted product simply does

not have the sensory and texture attributes comparable to those of the full-strength juice from which it was made. Thus, the point is not that juice can be diluted. Rather, the point is that the product claimed in claims 1-17 is not dilute juice, it is a beverage that tastes like the can component from which it is made.

Further, Applicants respectfully submit that neither Powers nor the art in general contains anything that suggests use of a sweetener that does not add a significant caloric load to the beverage to obtain the product claimed herein. The art is rife with disclosures of low-calorie sweeteners and the use thereof in juice-based products, but is silent with regard to any embodiment of the invention claimed in the pending application.

Indeed, Ojima is one such document. Applicants respectfully traverse the rejection of claims 1-4, 7, 8, and 14-17 over Ojima in view of Powers. As noted above, the sole disclosure for which Ojima is cited is the use of sucralose in an orange juice beverage. However, there is no disclosure in Ojima about the properties of the starting orange juice, and there is no disclosure about the properties of the resultant beverage. Further, Applicants respectfully submit that the result cannot be said to be inherently achieved, as the four components of the embodiments of the claimed invention simply are not found in Ojima, in Powers, or elsewhere in the art.

Thus, Applicants respectfully traverse the rejection of claims 1, 4, 7, 8, and 14-17 over Powers, and of claims 1-4, 7, 8, and 14-17 over Ojima in view of Powers.

Applicants respectfully traverse the rejection of claims 1 and 3-20 over Kupper in view of Powers. The citation of bits and pieces of Kupper in the office action does not form a proper basis for a rejection, as the document must be considered as a whole. As a whole, Applicants respectfully submit that Powers does not satisfy the defects of Kupper.

Applicants respectfully submit that the totality of the teachings of Kupper does not address the recitations in the claims. Pending claim 1 is directed to a citrus juice beverage having, *inter alia*, “a Brix level of between about 3 and about 9 Brix *while having sensory and texture attributes comparable to those of said citrus juice component having its given Brix level.*” [emphasis added] Kupper in view of Powers does not disclose the claimed beverage. Kupper does not disclose that the resultant product has “sensory and texture attributes comparable to those of said citrus juice component,” and Powers does not satisfy this failure. Further, this characteristic is not inherently obtained in cited Kupper or Powers. Rather, this characteristic would not have been obvious to the skilled practitioner considering either of these documents as cited herein, or in the proposed combination.

Importantly, the beverage of Kupper can have many attributes, but these attributes need not be “comparable to those of said citrus juice component.” Further, Kupper does not disclose (explicitly or inherently) or suggest the other limitations of the claim. The detailed description in Kupper is devoid of any disclosure relating to the Brix level of the starting citrus juice component, or of the resultant beverage. Thus, there is no disclosure in Kupper of these limitations, nor are they inherently obtained. Further, Powers does not supply that which is missing from Kupper. Herein, applicants have identified a particular range of Brix and have claimed a beverage that has, *inter alia*, particular sensory and texture attributes. This beverage would not have been obvious over Kupper in view of Powers. Therefore, Kupper in view of Powers simply does not suggest the invention as claimed.

Importantly, neither Kupper nor Powers suggests that the resultant beverage has “sensory and texture attributes comparable to those of said citrus juice component having its given Brix

level.” Indeed, the only example of Kupper that relates solely to orange juice contains no information about the properties and characteristics of the orange juice component and no information about the resultant product. The other example of Kupper comprises a significant fraction (greater than about 50 wt percent) of apricot puree. The properties and characteristics of the resultant product are not disclosed. However, it is not likely that this product of Example II, which comprises greater than about 50 wt percent apricot puree, has ‘sensory and texture attributes comparable to said orange juice component.’

Thus, Applicants respectfully traverse the rejection of claims 1 and 3-20 over Kupper in view of Powers. Kupper certainly does not suggest the present invention, and Powers does not fill the voids in Kupper’s disclosure so as to have made the invention to the skilled practitioner.

Although the remarks above have been directed primarily to composition claims 1-17, the points made therein apply similarly to the method claims (18 and 19) as well.

CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance. The prior art, whether considered individually or in combination as proposed, neither suggests nor discloses the embodiments claimed in the pending application. The cited art does not suggest each of the elements of the embodiments of the invention as set forth in the claims. Therefore, Applicants solicit favorable action on the claims.

Respectfully submitted,

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